

REMARKS

The Office Action:

Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 are pending in the present application. Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were rejected under 35 U.S.C. §102(b) as being completely anticipated by, or alternatively under 35 U.S.C. §103(a) as obvious over, the Chem. Abstracts abstract to Avella et al. (CA 1998:605333). Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were also rejected under 35 U.S.C. §102(b) as being completely anticipated by the patent to Wang et al. (U.S. Patent No. 5,952,433). Applicants respectfully traverse the foregoing rejections.

Rejection of the Claims Under 35 U.S.C. §112:

Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The rejection states that the term “water soluble” renders the claim unclear since water solubility is a matter of degree, and, therefore, relative. Applicants respectfully disagree. It is respectfully submitted that people skilled in the art use the terms “water soluble” and “water insoluble” extensively, and know the difference between those terms. For example, the Encyclopedia of Polymer Science and Engineering, vol. 17, page 730 (1986) devotes a 54 page chapter to “water-soluble polymers” (copy attached hereto as Exhibit 1).

Furthermore, on page 20, lines 24-5 of the present application, it is stated:

Water-soluble polymers with which the modified biodegradable polymers of the present invention can be blended include polyethylene oxide, polyvinyl alcohol, hydroxypropyl cellulose, polyacrylamide, sulfonated polyesters and polyacrylic acid.

Also, at page 21, line 5-9 of the present application, it is stated:

Biodegradable polymers grafted with a polar monomer or a mixture of monomers is preferred for enhanced compatibility with highly polar water-soluble polymers, such as PVOH, in order to obtain superior processing and mechanical and physical properties.

Thus, the present application provides several examples of what is meant by water-soluble polymers. Accordingly, it is respectfully submitted that those skilled in the art would know and understand what is meant by the term "water-soluble." That is all that Section 112 requires.

It should be noted that Claim 33 does not include the term "water-soluble." Therefore, rejection of Claim 33 is improper and should be withdrawn.

In view of the foregoing, applicants respectfully submit that Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 are not indefinite, and request that the rejection of those claims under Section 112 be withdrawn.

Rejection of the Claims Under Sections 102 and 103:

Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were rejected under 35 U.S.C. §102(b) as being completely anticipated by, or alternatively under 35 U.S.C. §103(a) as obvious over, the Chem. Abstracts abstract to Avella et al. (CA 1998:605333). The rejection states that Avella et al. discloses a composition containing poly(methyl methacrylate) and poly(methyl methacrylate) grafted to PHB, which is encompassed by applicants' grafted biodegradable polymer. The rejection further contends that poly(methyl methacrylate) may be slightly water soluble, and, therefore, meet the limitations of the present claims. Applicants respectfully disagree.

Attached hereto as Exhibit 2 is a printout of a web page from the Department of Polymer Science, University of Southern Mississippi. This document states as follows:

Poly(methyl methacrylate), which lazy scientists call PMMA, is a clear plastic, used as a shatterproof replacement for glass. *** The chemical company Rohm and Haas makes windows out of it and calls it Plexiglass. Ineos Acrylics also makes it and calls it Lucite.

*** **PMMA doesn't dissolve in water**, so dispersing PMMA in water requires another polymer to make water and PMMA compatible with each other. (Emphasis added).

It is well known that poly(methyl methacrylate) is not soluble in water. Furthermore, it is respectfully submitted that no person of skill in the art would consider Lucite or Plexiglass to be water-soluble. Therefore, it is respectfully submitted that poly(methyl methacrylate) is not water-soluble. Accordingly, applicants submit that since Avella et al. does not disclose a water-soluble polymer, it cannot form a basis for rejecting the present claims. Additionally, Avella et al. does not disclose a water-responsive homogeneous blend of polymers; and specifically does not disclose a blend of a biodegradable polymer and a water-soluble polymer. Accordingly, applicants respectfully request that the rejection of Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 under 35 U.S.C. §102(b) and 103(a) in view of Avella should be withdrawn.

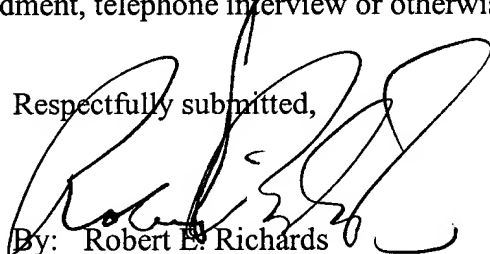
Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 were rejected under 35 U.S.C. §102(b) as being completely anticipated by the patent to Wang et al. The rejection states that Wang et al. discloses a blend of HEMA grafted polylactide and polyvinyl alcohol (a water-soluble polymer). He rejection concludes that the Wang et al. reference discloses all of the elements of the claims, and, therefore, is anticipated by the claims. Applicants are amending all the independent claims herewith to state that the biodegradable polymer is selected from poly(hydroxy alkanoates), poly(alkylene succinates), polycaprolactones or combinations thereof that are hydrolytically degradable. The patent to Wang et al. discloses only a polylactide, it does not disclose poly(hydroxy alkanoates), poly(alkylene succinates), polycaprolactones or combinations thereof

that are hydrolytically degradable. Since Wang et al. does not disclose one of the elements of the claims, it cannot anticipate the claims. Accordingly, applicants respectfully request that the rejection of Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 under 35 U.S.C. §102(b) in view of Wang et al. should be withdrawn.

Conclusion:

Applicants respectfully request reconsideration of the present application in view of the foregoing remarks. Applicants submit that all claims are now in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. Such action is courteously solicited. Applicants further request that the Examiner call the undersigned counsel if allowance of the claims can be facilitated by examiner's amendment, telephone interview or otherwise.

Respectfully submitted,


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